

# Merritt Reservoir 2011 Fall Survey Summary

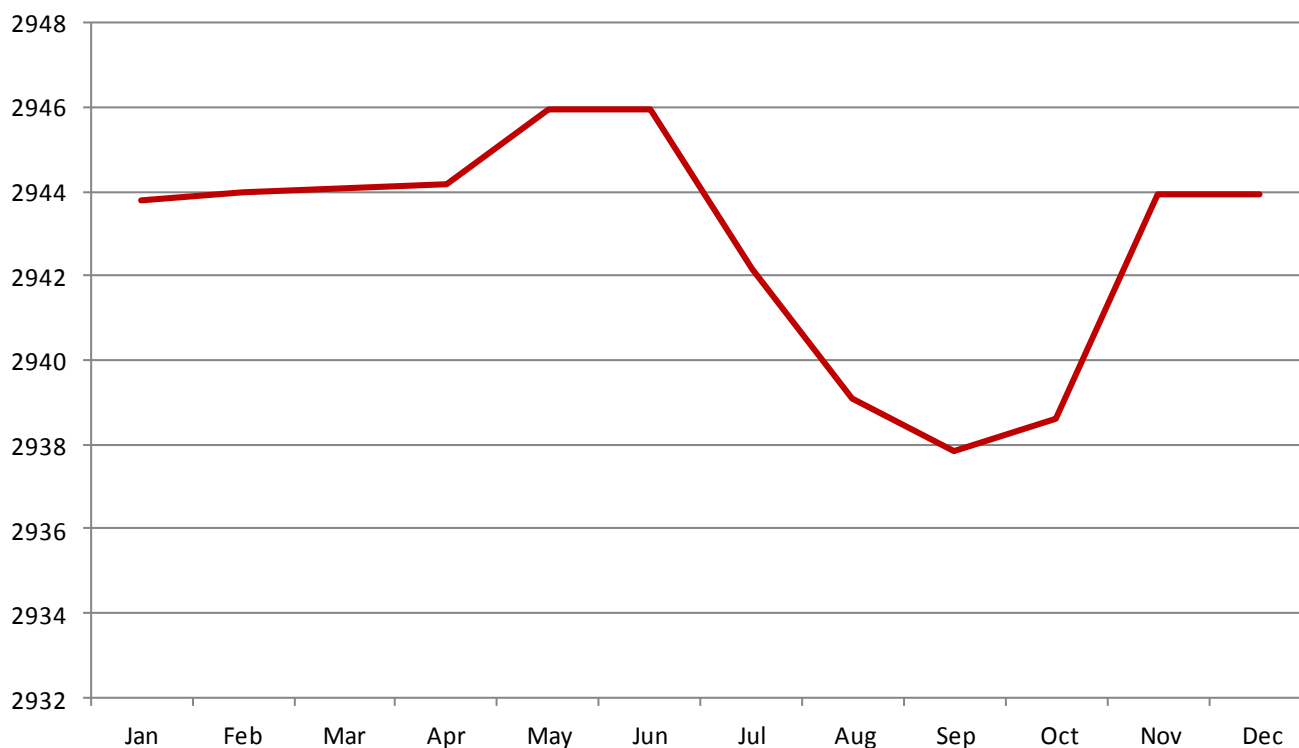
Zac Brashears, Fisheries Biologist



Merritt Reservoir is located in the Nebraska sandhills approximately 26 miles south-west of Valentine, NE. The area is comprised of 2905 acres of water with 6000 acres of land adjacent to the reservoir. The reservoir was built in 1964 by the Bureau of Reclamation for irrigation purposes. When built, the Snake River was dammed near its confluence with Boardman Creek, flooding both valleys along with the Powder Horn arm of the reservoir. Flows from both the Boardman Creek and Snake River contribute to filling the reservoir to full pool each year. A graph showing fluctuations in lake levels over the last year can be seen below. The water and land adjacent to the reservoir is managed by the Nebraska Game and Parks Commission for fishing, hunting, and recreational activities. Fishing is available year round and several different fish species are present in Merritt Reservoir which include: alewife, walleye, white bass, muskellunge, northern pike, yellow perch, bluegill, pumpkinseed, black crappie, largemouth bass, smallmouth bass, freshwater drum, black bullhead, white sucker, and common carp.

Facilities at Merritt Reservoir include eight campgrounds (one with electrical hookups and ADA accessible shower), one dump station, vault toilets, picnic shelters, two fish cleaning stations, five boat ramps with lighted parking lots, and an area concessionaire which provides permits, groceries, fee camping with RV hookups, boat rentals, fuel, cabins and guide services.

**Merritt Reservoir Monthly Elevation 2011**



The following text and graphs are the results of netting surveys completed during October 2011 at Merritt Reservoir. For comparative purposes it shows the results from previous years. Biologists use gill nets to sample species that are primarily found in open water such as walleye and white bass. Electrofishing surveys will be conducted every other year (even numbered years) at Merritt Reservoir to sample species such as largemouth and smallmouth bass. The nets and electrofishing stations are sampled each year at approximately the same locations and dates as previous years to allow for trend comparisons.

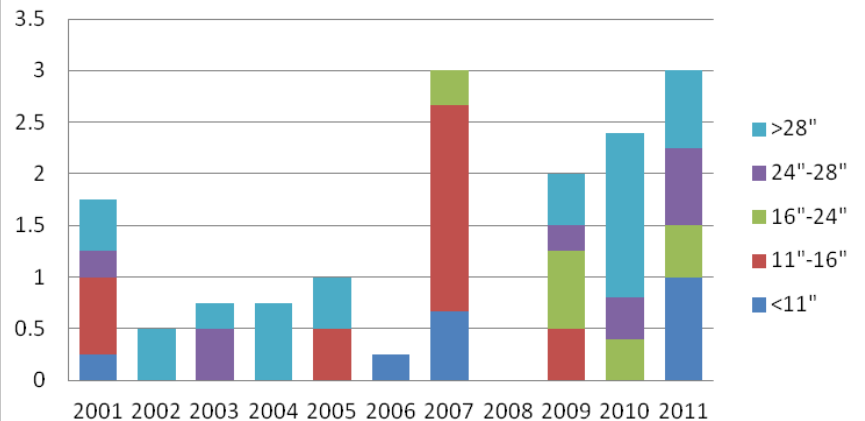
## Channel Catfish



Merritt Reservoir holds the Nebraska state record channel catfish weighing 41.5 pounds and was caught in 1986. Merritt has always been one of the top places for anglers to seek trophy catfish and as shown in the 2010 and 2011 survey has some very large catfish.

Net catches at Merritt have always remained low and averaged a little over one fish per net since 2001. The gill net catch for 2011 was 3 fish per net and 50% of those fish were over 24 inches in length. The average length of catfish sampled was 20 inches and the largest was 29.3 inches. Gill netting in 2011 also sampled fish under 11 inches in length which has not been observed since 2007. Statewide regulations went into affect January 1, 2011 which allow anglers to have a daily bag limit of 5 channel catfish. These regulations should potentially allow some of these fish to reach trophy size. Channel catfish are maintained by an annual stocking of 14,250 ten inch fish. This is a stocking rate of 5 fish per acre. Abundance of channel catfish has slightly increased at Merritt Reservoir over the past few years and anglers should see similar success as they did last year with opportunities at channel catfish over 24 inches in length. For more information on channel catfish check out the 2011 creel summary from Merritt Reservoir.

### Channel Catfish Per Gill Net



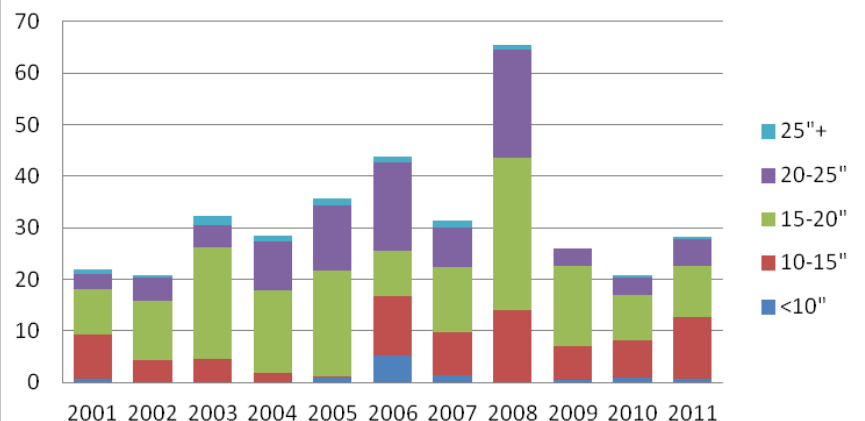
## Walleye

The gill net catch for walleye at Merritt Reservoir was higher last fall than the previous two sampling seasons. The catch was 28.25 fish per net, which is slightly lower than the average since 2001 of 32.66 fish per net. However, approximately 50% of the fish collected were over the statewide minimum of 15 inches and 20% of those fish sampled were over 20 inches in length. The average size of walleye collected was 16 inches and the largest sampled was 28 inches. Eleven different year classes of walleye were sampled during 2011. Merritt Reservoir is stocked annually with 142,250 fingerling walleye (2 inches) in June to maintain the population.

Anglers at Merritt are allowed a daily bag limit of four walleye which may include one from 15 to 18 inches and three over 18 inches ( it is allowable to have all fish over 18 inches) but no more than one fish over 22 inches in length is allowed in the daily bag.

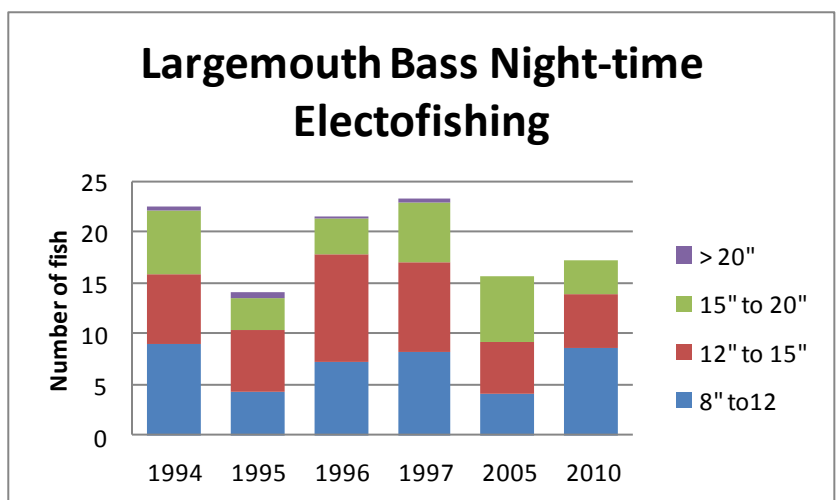
Walleye fishing at Merritt Reservoir should slightly improve over the past few fishing seasons and provide good opportunity of walleye 15-25 inches in length. Fish greater than 25 inches were sampled in 2011 and are often seen while working walleye spawn in April. For more information on walleye fishing be sure to check out the 2011 creel summary for Merritt Reservoir.

### Walleye Per Gill Net



### Largemouth Bass

Beginning in 2010 largemouth and smallmouth bass populations will be sampled every other year (even numbered years). In 2010 the electrofishing catch per unit of effort was approximately 27 fish per hour. This catch rate was above the long term average of 23.4 fish sampled per hour and the population showed excellent size structure. Approximately 12 percent of the population sampled was above the 15 inch statewide minimum and the largest fish sampled was 19.4 inches. 2010 also showed strong year classes of smaller fish and these fish should contribute to the population in the future. Anglers should seem similar success as the past few years while targeting largemouth bass at Merritt Reservoir.



### Smallmouth Bass

Smallmouth bass are also present in Merritt Reservoir and allow for some angling opportunity. In 2010, only .6 smallmouth bass were collected per hour of electrofishing and these fish were all under 7 inches in length. In July of 2011 approximately 20,000 smallmouth bass were stocked in Merritt Reservoir to supplement the population.

Statewide regulations for black bass species in inland waters are a daily bag limit of 4 fish with a minimum length limit of 15 inches and only one fish may be over 21 inches. For more information on largemouth and smallmouth bass fishing be sure to check out the 2011 Merritt creel summary.

### Other Species

**Northern Pike-** Northern pike numbers have seemed to increase the past several years with more stable water conditions. These populations are sampled with trap nets on even numbered years and in 2010 averaged approximately 1 fish per trap net night. The average length of pike collected was 28 inches and the largest fish measured 39 inches. Egg collection will take place at Merritt Reservoir in 2012 usually in mid to late March depending on ice conditions.

**Muskellunge-** Merritt Reservoir has always been one of the top places in Nebraska for anglers to search for trophy muskellunge. The state record muskellunge was caught at Merritt in 1992 and weighed 41 pounds 8 ounces. Muskellunge are very difficult to sample in our standard surveys but are generally collected during the spring walleye egg collections that occur in April. The largest muskellunge collected during the 2011 operation measured 46 inches and weighed approximately 30 pounds. The muskellunge collected are used to produce eggs for pure strain muskellunge and also to cross with northern pike to produce hybrid tiger muskellunge for our production needs. Muskellunge regulations allow a daily bag limit of 1 fish with a minimum length of 40 inches.

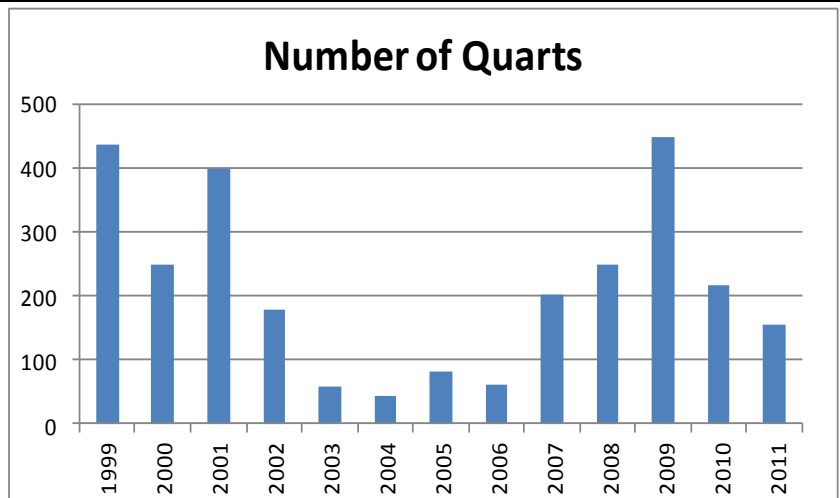
**White Bass-** White bass are present in Merritt Reservoir although numbers have remained low. Only one fish was sampled in the 2011 fall survey and measured approximately 17.5 inches and weighed 3 pounds. In 2011, 61,184 white bass fingerlings were stocked to supplement the population. Requests have been made for 120,000 fingerling white bass for 2012. These fish are stocked in an effort to increase abundance and increase late summer angling opportunity. Statewide regulations allow a daily bag limit of 15 fish and only one fish over 18 inches in length in the daily bag.

**Panfish-** Black crappie, bluegill, and yellow perch also reside in Merritt Reservoir and allow for some additional angling opportunities. Black crappie are generally caught during the early spring spawning period or through the ice during the winter months. Bluegill and yellow perch are caught year round and have been a favorite for anglers during the late summer months once other species of fish move to deeper waters and can be challenging to find. Statewide regulations allow a daily bag limit of 15 fish in combination (all panfish species).

For more information on angling opportunities for these species be sure to check out the 2011 creel summary for Merritt Reservoir.

### Walleye Spawn

Fisheries Division will be conducting walleye spawn operations at Merritt, Sherman, and McConaughy Reservoirs during 2012. These operations usually take place in late March or early April and will last one or two weeks or until collection needs are met. Nets are set parallel to the dam or shore line in order to collect females coming in to spawn. These nets are marked with a buoy on each end. During 2011 fishery personnel collected approximately 155 quarts of walleye eggs from Merritt Reservoir before statewide needs were met. A graph showing historical egg collections can be seen to the right.



### Angler Creel Survey

A five year angler creel survey is being conducted at Merritt Reservoir. The study is being done by an agreement with the Nebraska Game and Parks Commission and the Nebraska Cooperative Fish and Wildlife Research Unit through the University of Nebraska at Lincoln. This survey will be run from April 1 until October 31 for the years 2009-2013. During this time, anglers are counted and interviewed for twenty randomly selected days per month, fourteen week days and six weekend days. Information gathered from this survey allows fisheries managers to look at estimates of angling pressure, size structure of fish caught, catch and harvest, and catch rates per hour. Anglers are encouraged to cooperate with creel clerks, it will only take a few minutes of their time. The information gathered from the creel survey will help managers to provide an optimum sport fishery.

### Zebra and Quagga Mussels

Anglers and boaters should be reminded that AIS (Aquatic Invasive Species) issues have become a rising concern in Nebraska. Zebra mussels and quagga mussels are small fingernail-sized mussels and adults are usually 1/4 to 1/2 inches long with alternating yellow and brownish colored stripes on their shell. Statewide monitoring in Nebraska has begun since the zebra mussels were confirmed in Nebraska at Offutt Lake and Zorinsky Lake near Omaha and are present in several reservoirs in Colorado and Kansas. Sampling for veligers (free-swimming larvae of adult mussels) occurs statewide from the months of May through September. Fortunately, no evidence of these mussels has been found in any other lakes that were sampled.

These mussels can spread in their immature form known as veligers by being transported in bilge, ballast, or live well water or as adults attached to boat hulls, engines, aquatic weeds, or other surfaces. Once established these mussels can cause millions of dollars in damage to recreation, water systems, and fisheries. Anglers and boaters should always remember to **CLEAN DRAIN DRY** which will help to prevent the spread of these unwanted species.

**CLEAN**– Remove plants, animals, mud, and thoroughly wash equipment that came into contact with the water.

**DRAIN**– Drain all water before leaving, including wells, bilge, ballast, and any parts or equipment that can hold water.

**DRY**– Allow all equipment to dry completely before launching into another body of water.

For more information on invasive species in Nebraska make sure to visit the University of Nebraska's invasive species project website at <http://snr.unl.edu/invasives>.



**STOP AQUATIC  
HITCHHIKERS!™**

Prevent the transport of nuisance species.  
Clean all recreational equipment.  
[www.ProtectYourWaters.net](http://www.ProtectYourWaters.net)

For additional information about fisheries management at Merritt Reservoir please contact the following NGPC personnel by phone or email addresses listed below.

District Supervisor: Al Hanson, (308)763-2940 [al.hanson@nebraska.gov](mailto:al.hanson@nebraska.gov)

Biologist: Zac Brashears, (402)376-8080 [zac.brashears@nebraska.gov](mailto:zac.brashears@nebraska.gov)

Biologist: Joe Rydell, (308) 763-2940 [joe.rydell@nebraska.gov](mailto:joe.rydell@nebraska.gov)